

## Curriculum vitae

**Doc. Ing. František Lízal, Ph.D.**

**Born:** 10th June 1983 in Kroměříž



### Education and academic qualification:

- 2019, Assoc. Prof. habilitated at the Brno University of Technology, Faculty of Mechanical Engineering,
- 2012 PhD received at Brno University of Technology, Faculty of Mechanical Engineering,
- 2007 Master degree in Mech. Eng. received at the Brno University of Technology, Faculty of Mechanical Engineering.

### Employment:

- 2019 – to date, Associated professor at Energy Institute, FME BUT, specialization in aerosols, modelling of lungs and inhaled particles, filtration of aerosols, measurement of the flow of fibres, air flow in car cabins, teaching Thermodynamics (English language course, lectures and seminars), supervising PhD, master and bachelor theses, mentoring of foreign students, organizing and participating in international and national projects.
- 2015 – 2019 Assistant professor, Energy Institute, FME BUT, research and development in aerosols, modelling of lungs and inhaled particles, filtration of aerosols, measurement of the flow of fibres, air flow in car cabins, teaching Thermodynamics (English language course, lectures and seminars), supervising master and bachelor theses, mentoring of foreign students, organizing and participating in international and national projects.
- 2012 – 2015 Postdoc - Energy Institute, FME BUT, research and development in aerosols, modelling of lungs and inhaled particles, filtration of aerosols, measurement of the flow of fibres, air flow in car cabins, teaching Thermodynamics (Czech language course - seminars), supervising master and bachelor theses, mentoring of foreign students, participating in international and national projects.
- 2007 – 2012 Researcher, VaV, experimental modelling of aerosols and lungs, measurement of the flow of fibres, air flow in car cabins, teaching Thermodynamics (Czech language course - seminars), supervising bachelor theses, mentoring of foreign students, participating in international and national projects.
- 2005 – 2007 Junior researcher, FSI VUT v Brně, Atomisation and sprays – phase Doppler anemometry, airflow measurement using hot-wire anemometry.

### Pedagogical activities:

- Lectures and seminars of Thermodynamics in English language, seminars of Experimental methods II, Seminars of Thermodynamics in the Czech language.
- Supervisor of 8 master and 14 bachelor successfully defended theses, currently leading 4 bachelor and 1 diploma thesis.
- Supervisor of 10 foreign students — 2 to 5 months laboratory internship (6 students within the UNIGOU INCBAC program, 1 student within Erasmus, 3 students within IAESTE).
- Supervisor - specialist of Miloslav Bělka, Ph.D. (PhD defended in 2018), supervisor of Jan Šíp (2<sup>nd</sup> year Ph.D student), and Ondrej Mišík (1<sup>st</sup> year Ph.D student).

## Scientific and research activities:

- H-index 9, ISI Web of Knowledge citations (without autocitations): 122.
- 2016, The model of human airways developed by Frantisek Lizal and collaborators was adopted as a benchmark case within COST MP1404 SimInhale (<http://www.siminhale-cost.eu/>)
- 2007 – to date, transport and deposition of particles in human airways
- 2006 – to date, measurement of the ventilation system of car cabins
- 2005 – 2006, measurement of atomization nozzles (PDA)
- Collaborated at 14 grant projects, (GAČR, TAČR, COST, KONTAKT)
- 3 national patents, 2 utility models

## Academic internships abroad

- 2013, 2014 University of California, Davis, CA, USA (4 months)
- 2009-2013, CARES, Clarkson University, Potsdam, NY, USA (5 months in total)
- 2008, Forschungszentrum Dresden - Rossendorf, Germany (2 months)

## Awards

- 2018, Breathing simulator developed by Frantisek Lizal and collaborators evaluated according to the M17+ methodology as the “world-leading technology“, i. e. the highest rank (the best at the BUT).
- 2017, prof. Pulkrábek award for the best paper by young author (2<sup>nd</sup> place) – the Society for Environmental Engineering.
- 2008, 1<sup>st</sup> place in the competition of master theses (Škoda Auto a.s.)
- 2007, The Dean’s award – Faculty of Mechanical Engineering, BUT.

## Societies and non-academic activities:

- Member of the Czech aerosol Society
- Member of the International Society for Aerosols in Medicine
- Leader of Early career investigators group and leader of WG4 within COST MP1404 SimInhale

*22<sup>nd</sup> October 2020*  
*Brno*

*František Lízal*